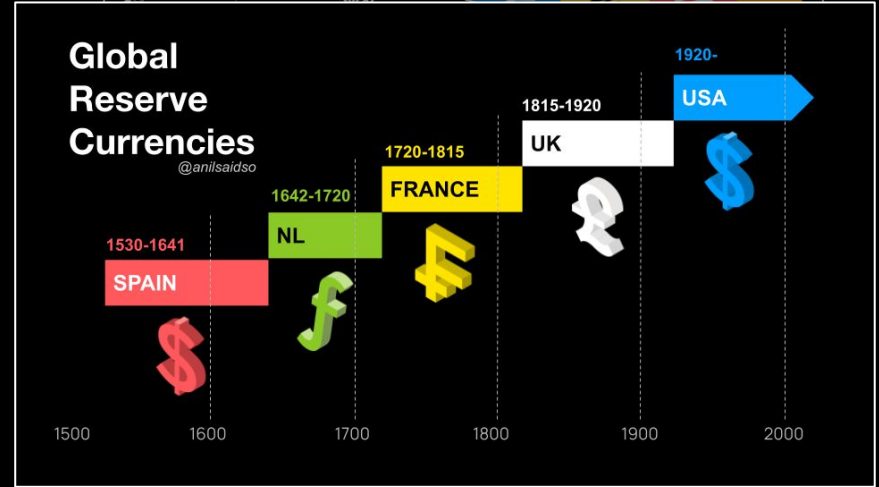


TEACHING BITCOIN

Presentation Bundle

by **Anil**



Best visuals in the space!

Thanks a lot!

—@luecki23

*Communicates points super
clearly.*

—@HA_Writers

*WOW. These are absolutely
incredible thank you so much!*

—@biitcoinbabe

*Your infographics have
unlimited value.*

—@h827hbh_22

This resource is a collection of my most popular and effective educational materials for communicating the many facets of bitcoin. They're ideal for your next meetup event, conference presentation, or blog post.

Thank you for your continued support.

-Anil

@anilsaidso 



CC BY-NC 4.0

Contents



Money

Innovation

Economics

Networks

Bitcoin

Money

PHYSICAL

DIGITAL

PRIMITIVE

PRECIOUS METALS

GOLD-BACKED

FIAT

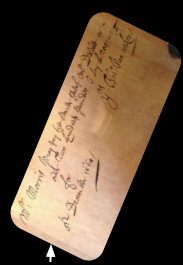
PROOF OF WORK



DEPOSITED



RECEIPT



GOV'T ISSUED



TIME

FROM GOLD TO PAPER

Bank-issued
Paper Note
Redeemable for
Gold

Govt-issued
Paper Note
Redeemable for
Gold



Gold as
Money



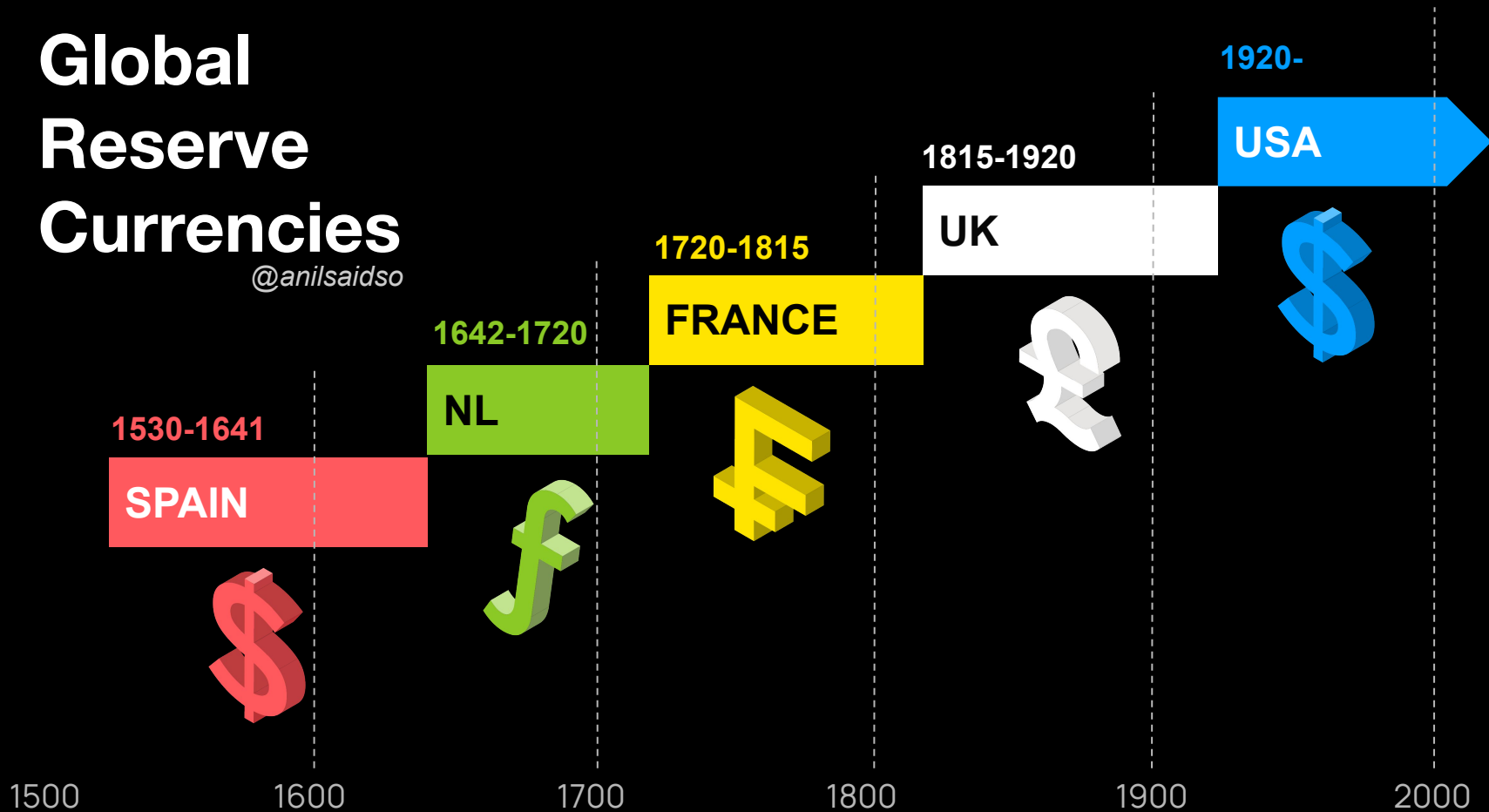
Gov't-issued
Gold Certificate



Gov't-issued
Notes (post-1933)
Not Redeemable for
Gold

Global Reserve Currencies

@anilsaidso



Global Reserve Currencies

1530-1641

SPAIN

1642-1720

NL

1720-1815

FRANCE

1815-1920

UK

1920-

USA

Estimated Relative Standing of Great Empires

Data Source: Bridgewater Associates

1.0

0.75

0.5

0.25

0

Level Relative to Other Empires
(1=peak)

1500

1600

1700

1800

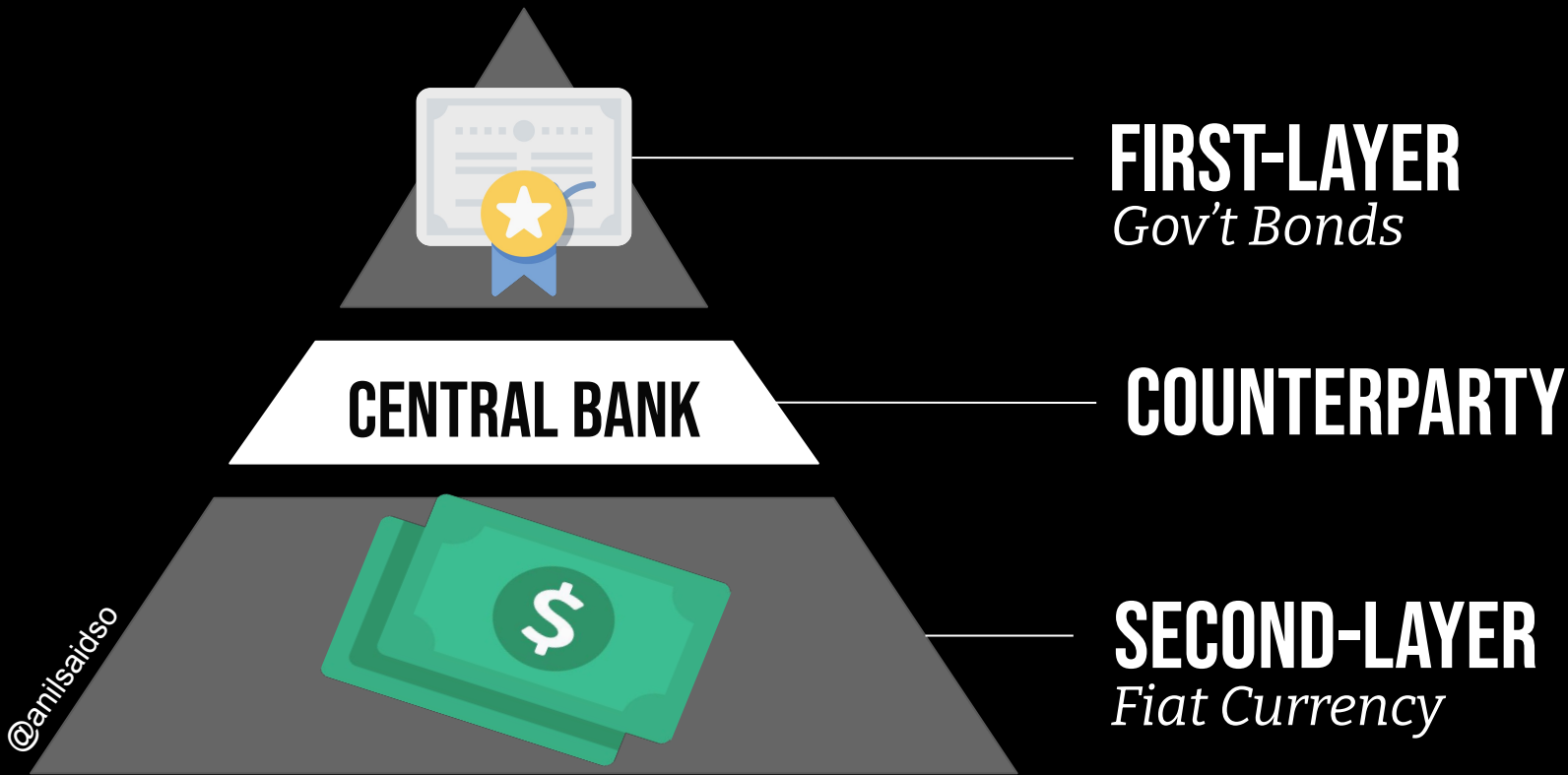
1900

2000

CHN

GER

JPN



Adapted from the work of Nik Bhatia



DESIRABLE PROPERTIES OF MONEY

According to **Robert Breedlove**

1

SCARCITY

Difficult to produce, resistant to supply manipulation/value dilution

2

DIVISIBILITY

Units that can be combined or separated at various scales

3

PORTABILITY

Density of value, ease with which it can be moved across space

4

DURABILITY

Does not deteriorate, ease with which it can be moved across time

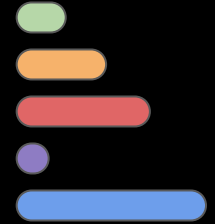
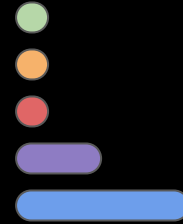
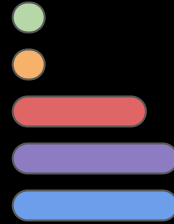
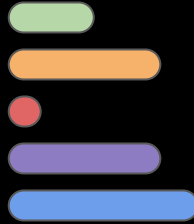
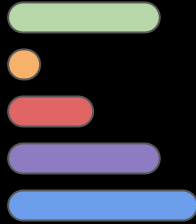
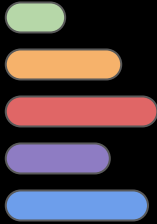
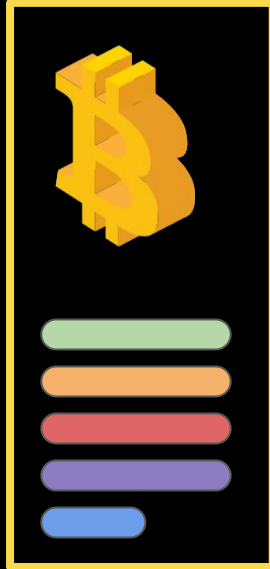
5

RECOGNIZABILITY

Ease with which it can be identified and its value verified by others

MONETARY PROPERTIES

SCARCITY
DIVISIBILITY
PORTABILITY
DURABILITY
RECOGNIZABILITY



The **Abuse** of Sovereign Money



**Coin
Clipping**



**Metal
Debasement**



**Fiat
Inflation**

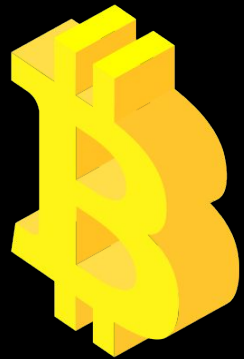
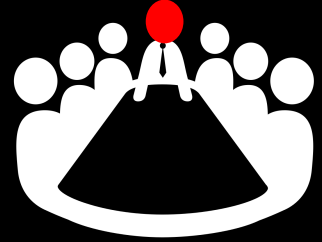
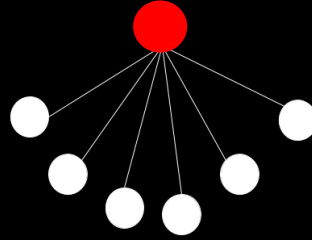
UNIT

SETTLEMENT

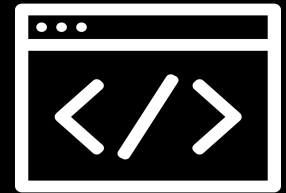
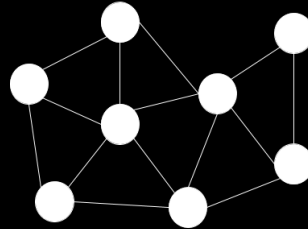
ISSUANCE



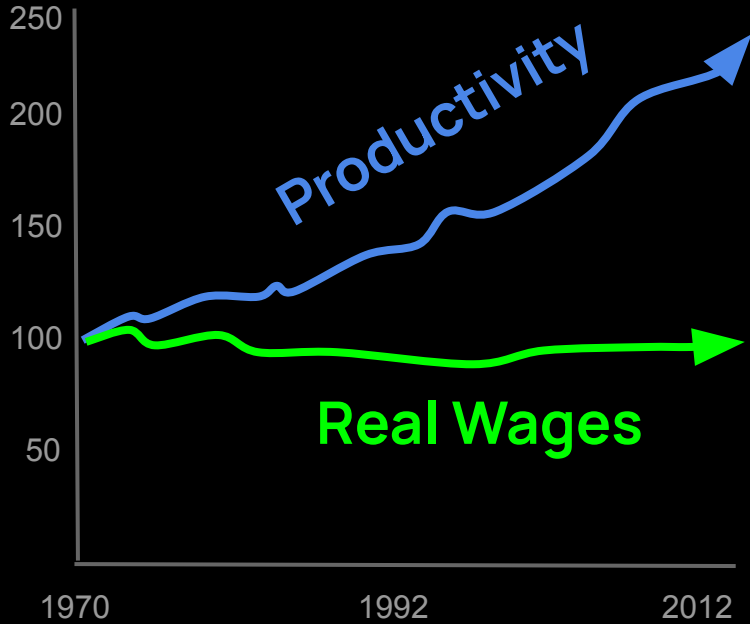
cent
0.01



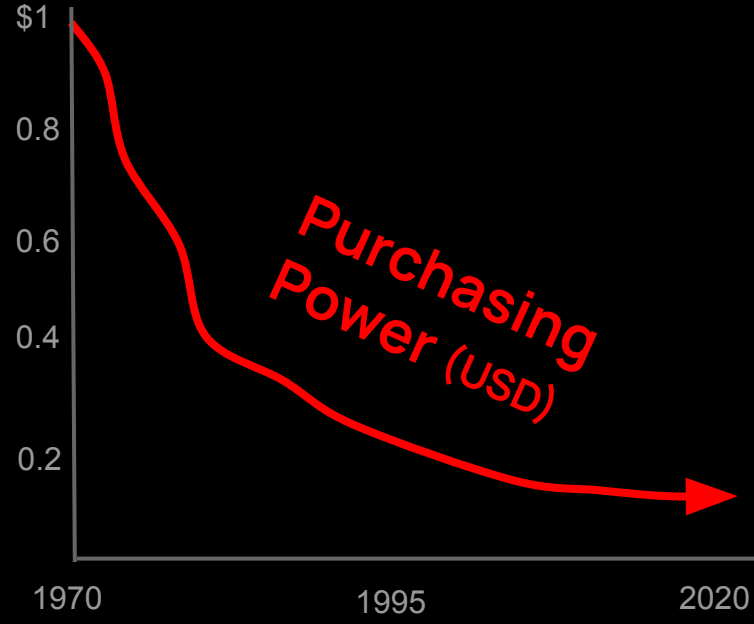
satoshi
0.00000001



The Road to Serfdom

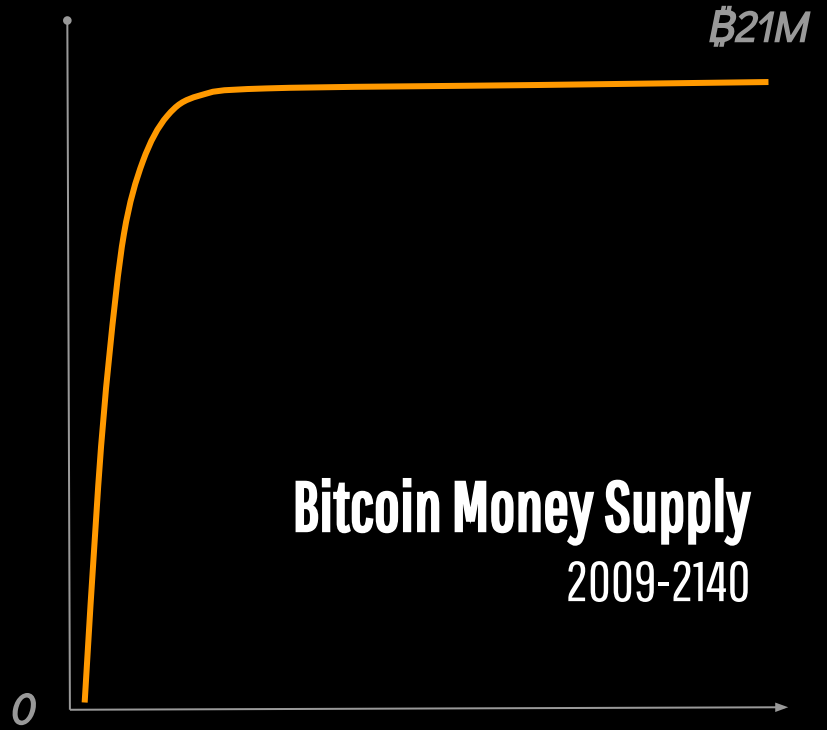
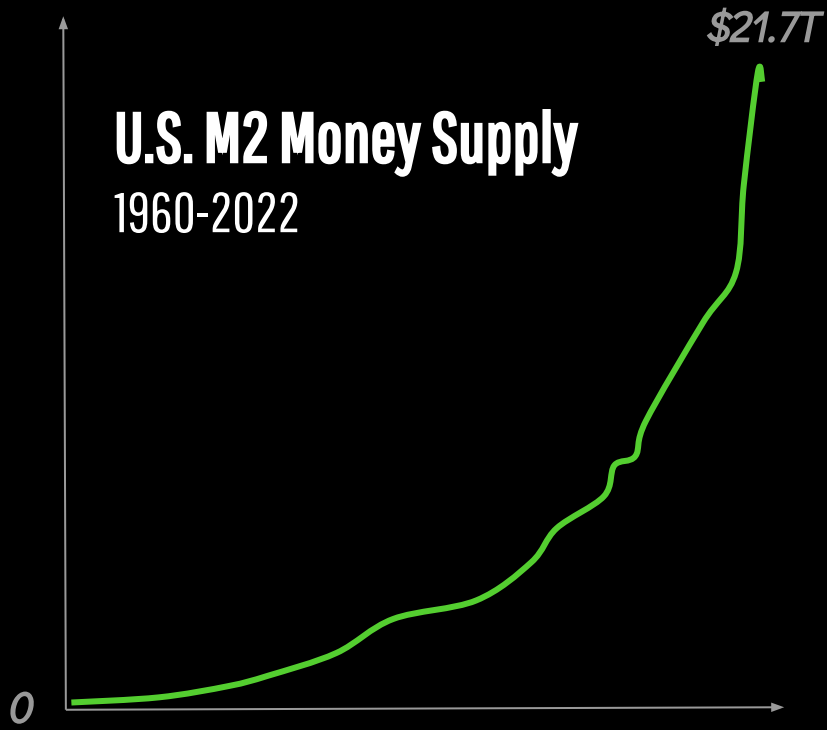


Source: Bureau of Labor Statistics

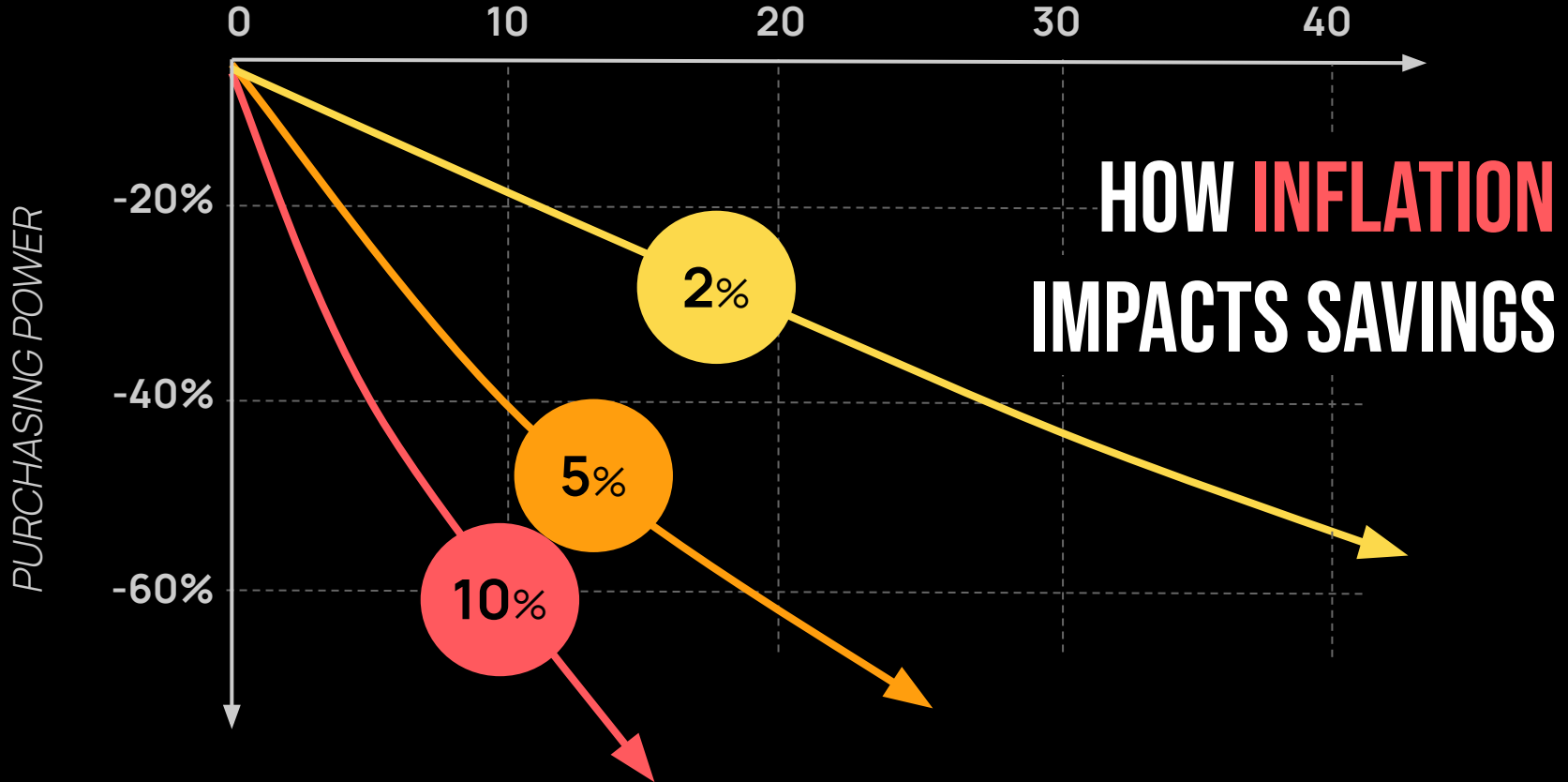


Source: FRED

@anilsaidso



YEARS



\$2.90

2004



\$5.80

2022

source: The Economist Big Mac Index

DISGUISED INFLATION

INPUT PRICES RISE

HIDE INCREASE

RAISE PRICES

DETERIORATION

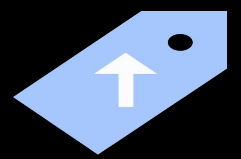
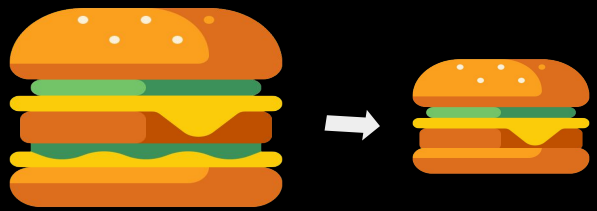
Reduce *Quality*
of Ingredients

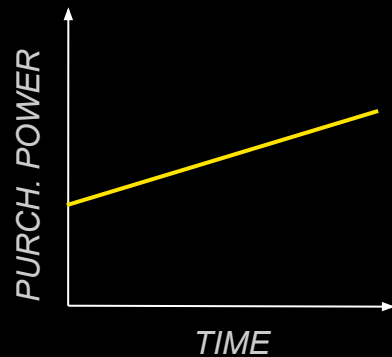
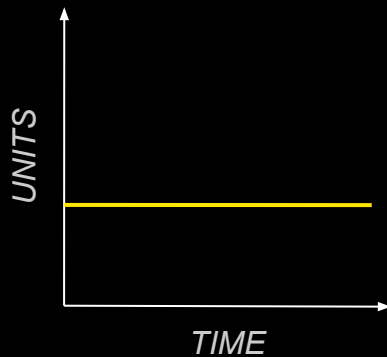
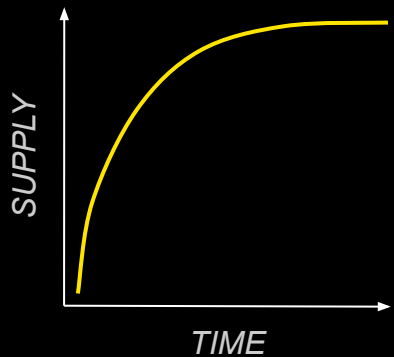
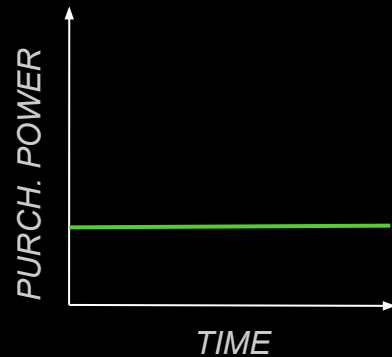
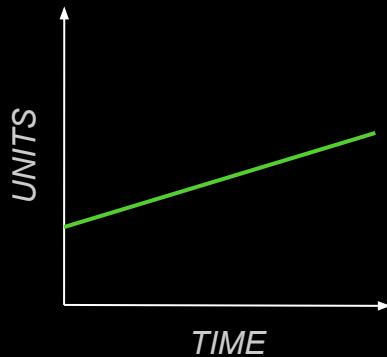
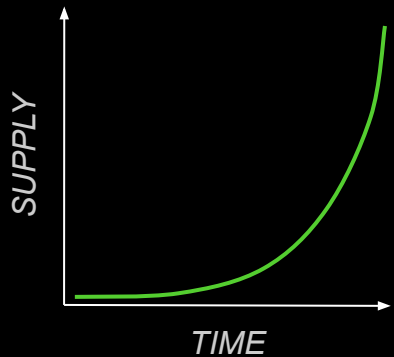
SHRINKFLATION

Reduce *Quantity*
of Ingredients

PRICE INFLATION

Pass on Costs to
Customers





Innovation

The Deflationary Force of Innovation

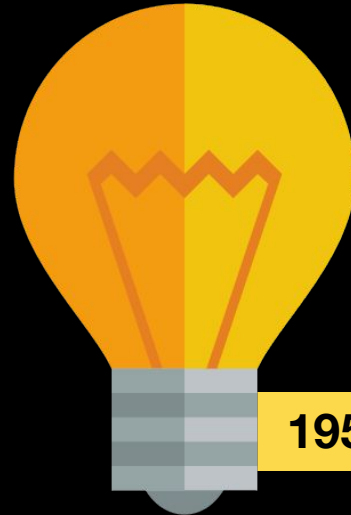
@anilsaidso



Kerosene Lamp

1 min of work buys
4 mins of light

1880



Incandescent Bulb

1 min of work buys
7 hrs of light

1950

"A minute of work in 1880 on the average wage could earn you four minutes of light from a kerosene lamp;

a minute of work in 1950 could earn you more than seven hours of light from an incandescent bulb.."
—**Matt Ridley**

AGRARIAN AGE



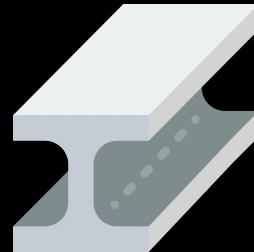
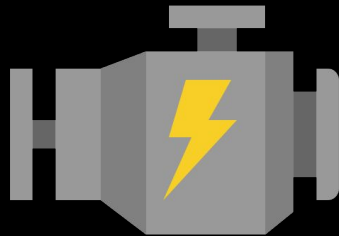
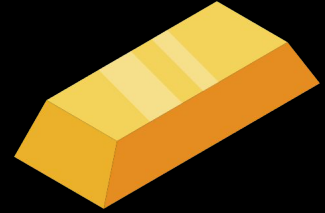
INDUSTRIAL AGE



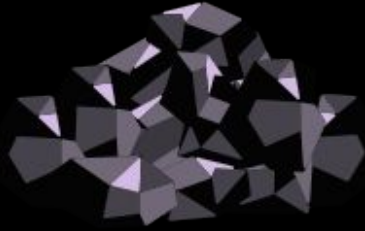
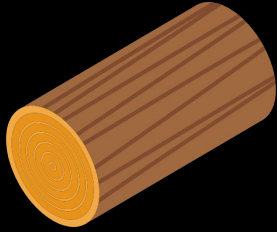
INFORMATION AGE



The lesson of innovation: upgrade or get left behind

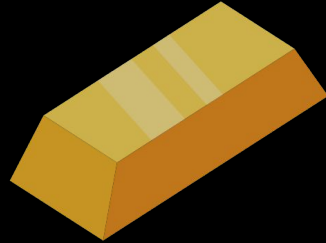


ENERGY



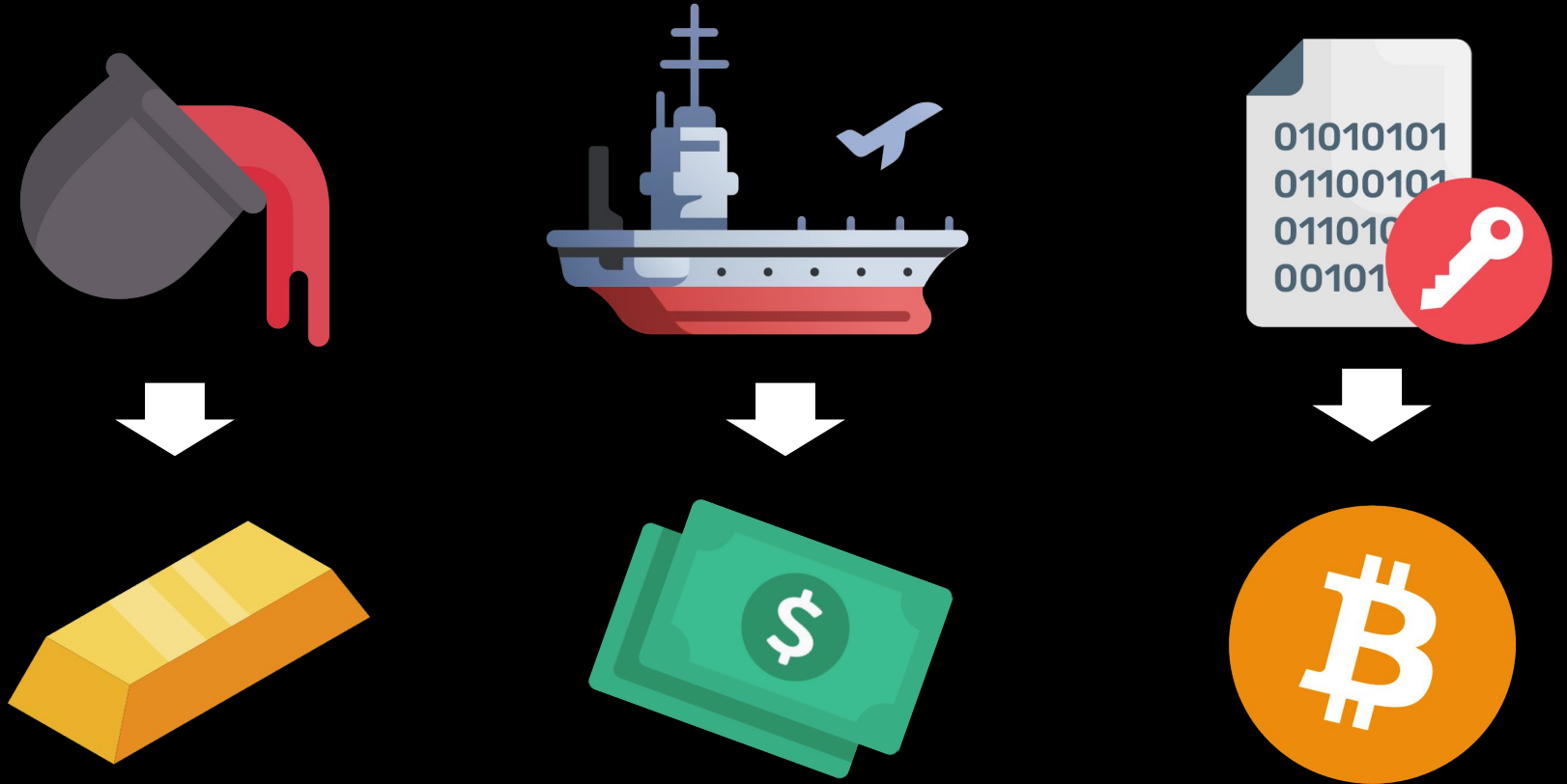
lower ← density → *higher*

VALUE



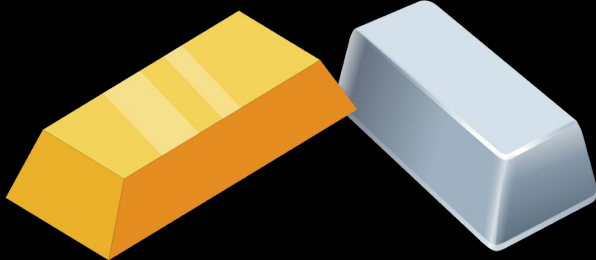
Density refers to stored energy.
It determines storage and transportation costs.

Money is technology.

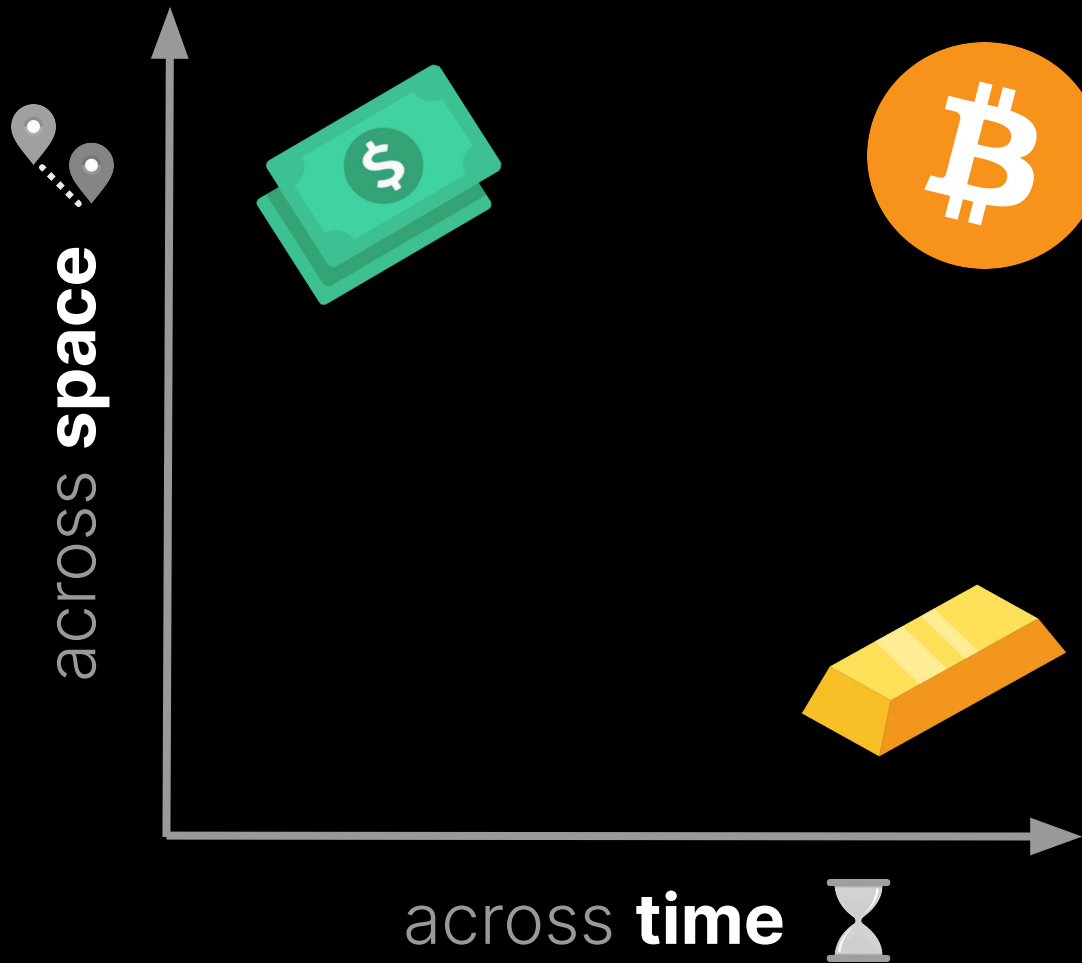


How It's Made





Money that has no cost to produce,
will be produced ad infinitum.



Salability *(noun)*

The extent to which something can be easily sold.

Can it be arbitrarily diluted?

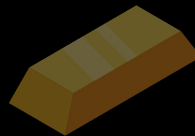
NO

YES

Can it be stopped?

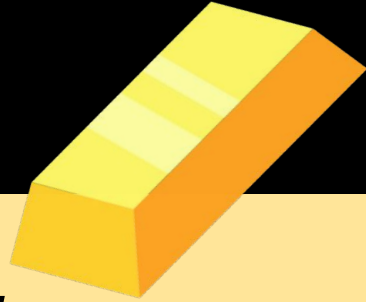
NO

YES



@ANILSAIBSO

PAST



FUTURE

**GOLD
STANDARD**

**BITCOIN
STANDARD**

Economics

total # of halvings
to ever occur

of new
bitcoins issued
per block

$$\sum_{i=0}^{32}$$

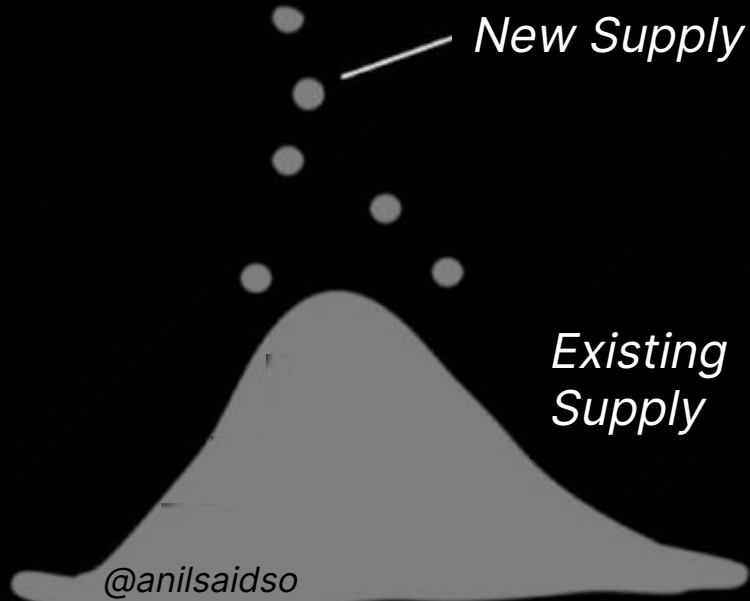
210,000

$$\left(\frac{50}{2^i} \right)$$

of blocks
between halvings

cumulative #
of halvings
so far

Current Era
Block Reward:
₿6.25



Next Era
Block Reward:
₿3.125



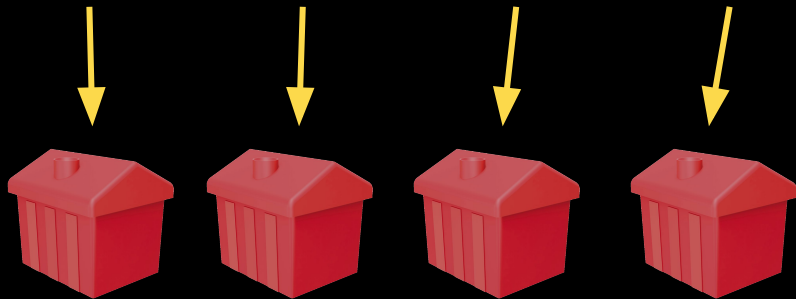
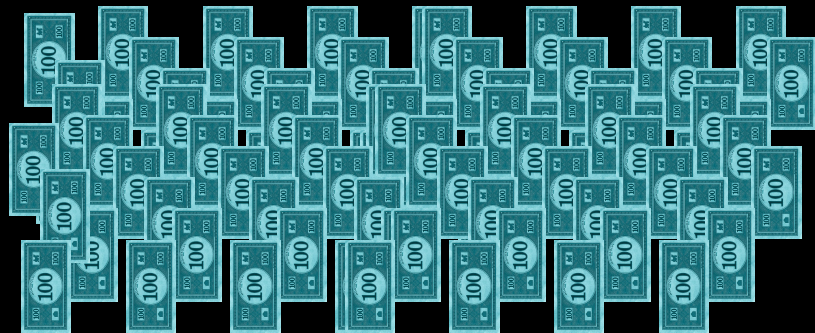
Total Bitcoin Mined

APR 2023

92%

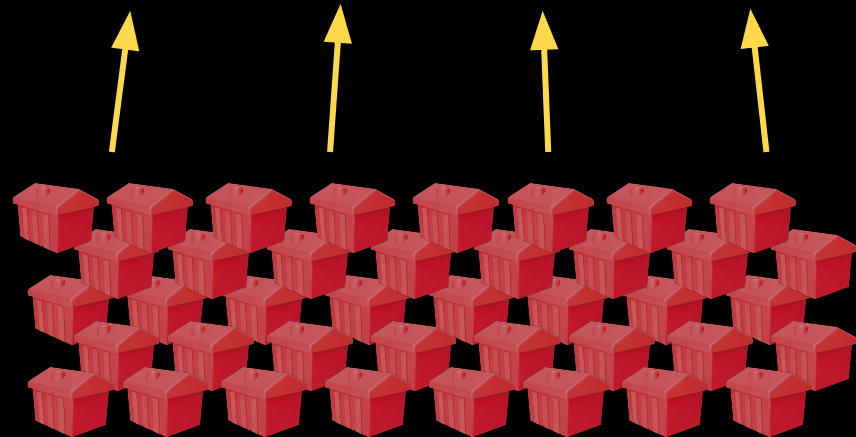


Fiat Economy



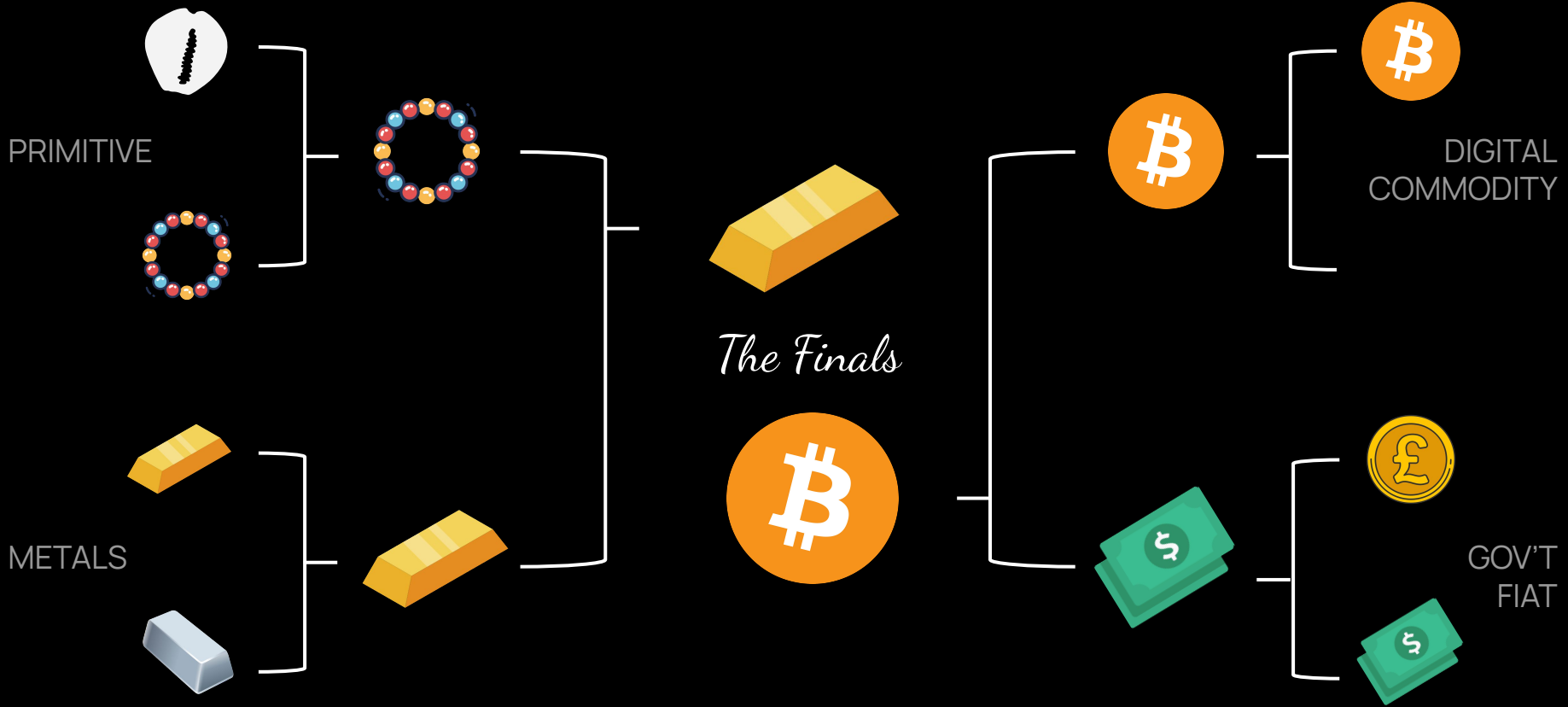
Abundant money leads to asset scarcity.

Bitcoin Economy



Scarce money leads to asset abundance.

Money is a winner-take-all competition.



Grocery prices rising

Gas Prices Were Supposed to Drop
They Just Keep Rising

Inflation, rising energy prices
could squeeze U.S. families

House prices at seven times average
income as supply dwindles further



SYMPTOMS

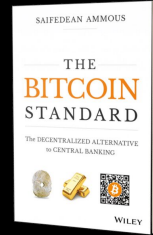
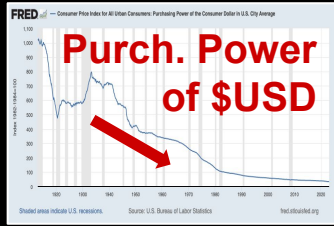
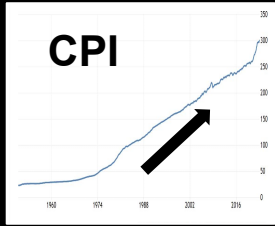


ROOT CAUSE

SOLUTION

BITCOIN MARKETING FUNNEL

@ANILSAIDSO



Systems *of* Measurement



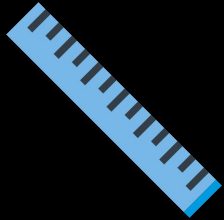
Weight



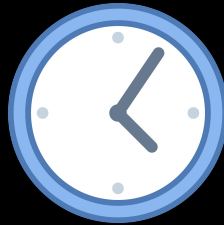
Temp.



Energy



Distance



Time



Angle



Pressure



Value

HOW BITCOIN GROWS

TAKING A SLICE FROM MANY PIES

@anilsaidso

RE-DENOMINATING EXISTING BUS. MODELS & PRODUCTS

- Insurance Policies
- Credit Card Rewards
- Loyalty Programs
- Salaries
- Lotteries & Gaming
- Savings & Loans

DRAINING MONETARY PREMIUMS

- Investment Real Estate
- Precious Metals
- Corporate Bonds
- Gov't Bonds
- Equities
- Physical Collectibles

REPLACING FIAT WEIGHTING IN PORTFOLIOS

- Pension Funds
- Endowments
- Mutual Funds
- Corporate Treasuries
- Sov. Wealth Funds

Networks



PEOPLE



CARGO

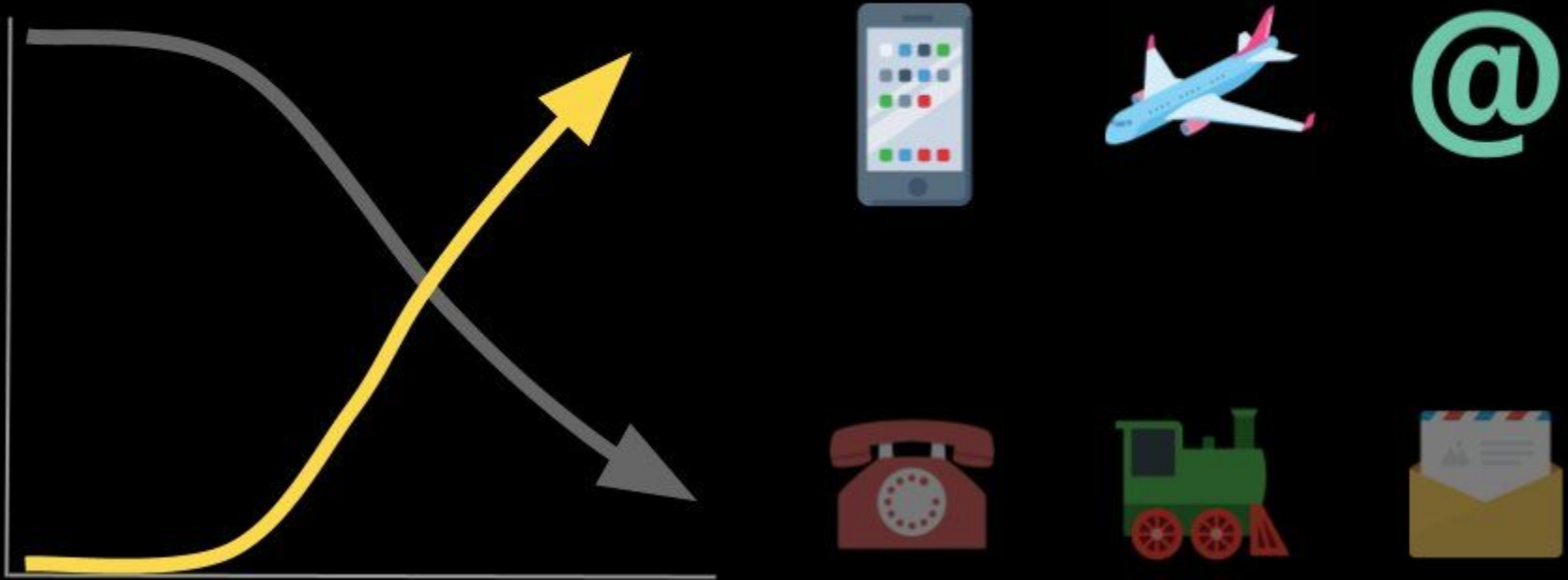


INFORMATION



Networks are how things get from A \rightarrow B.
Most commonly, we use networks to transport people, cargo, and information.

CREATIVE DESTRUCTION



As engineering advances, networks (and infrastructure) may be rendered obsolete as more useful modes of moving things from A \rightarrow B become economical.



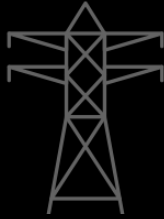
PHYSICAL TRANSMISSION



Smoke
Code



Mail
Text



WIRED



Ethernet
Data



Telegraph
Morse



Telephone
Sound



WIRELESS



Cellular
Sound, Data



Satellite
Data



Wi-Fi
Data



Bitcoin
Value

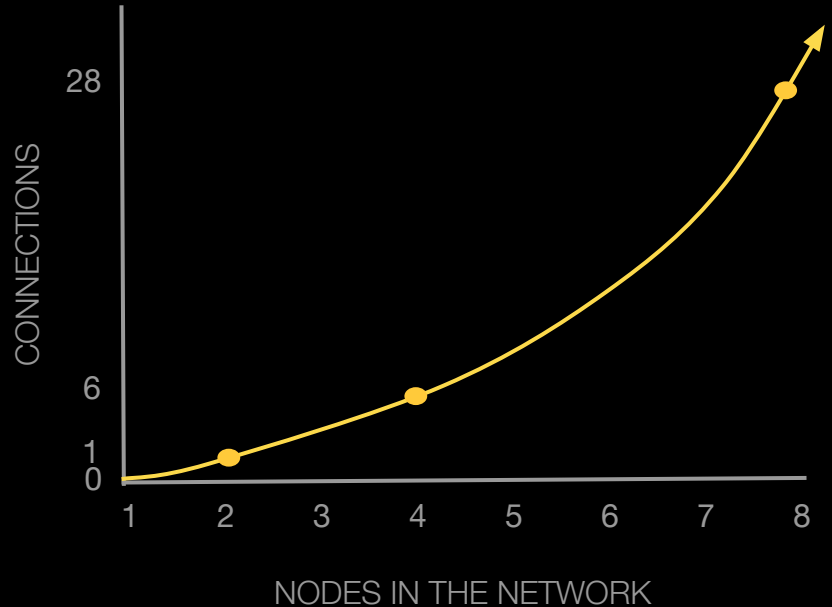
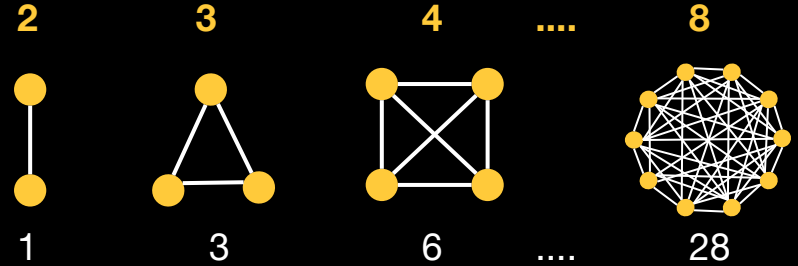
Communication networks are not immune to innovation, which regularly births new ways of sending & receiving information.

Network Effects

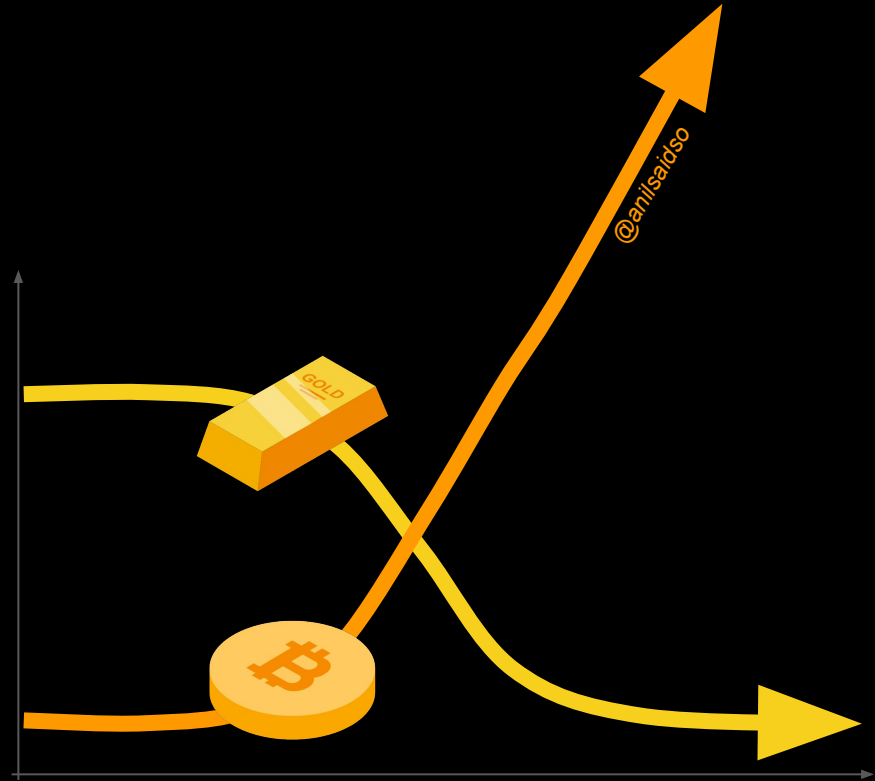
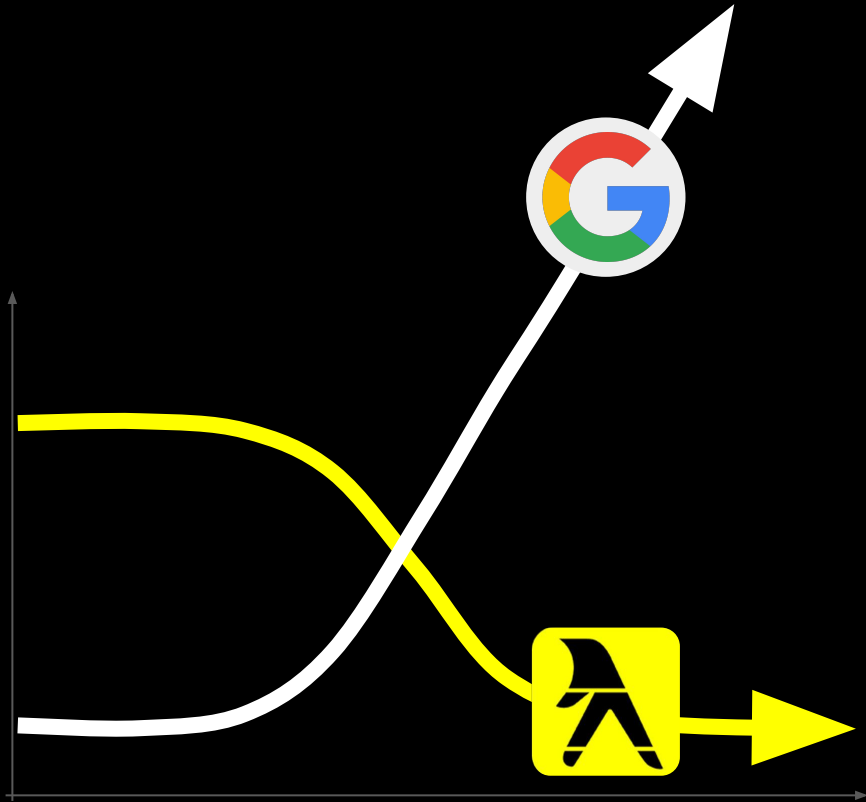
Metcalfe's Law

The value of a communications network being approximately proportional to the square of the number of connected users

Network Value \propto (# of nodes)²



Dominant digital networks exceed the scope of analog predecessors.



>\$100bn

Dominant Digital Networks

@anilsaidso



Social



Mobile



Retail



Speech



Information

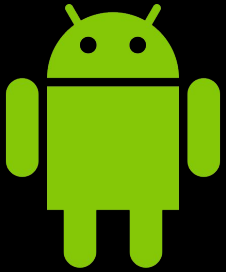


Video

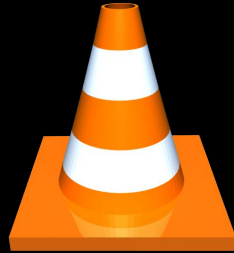


Monetary

Open-source Software



Operating Systems



Media



Publishing



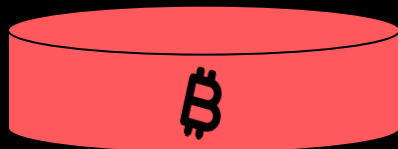
Browser



Money

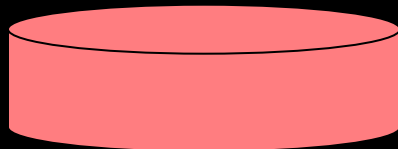
THE FIFTH LAYER

Illustration: @anilsaidso
Quotes: Robert Breedlove



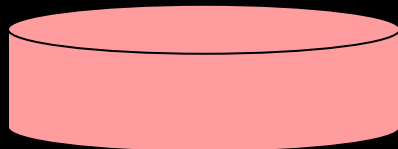
VALUE TRANSFER LAYER

“Allocates scarce resources across networks”



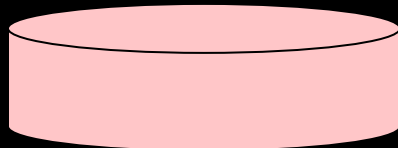
APPLICATION LAYER

“Delivers software files & applications”



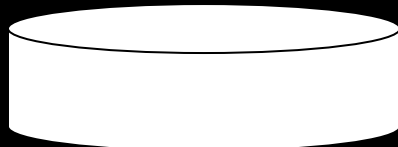
TRANSPORT LAYER

“Persists communication across any given conversation”



INTERNET LAYER

“Routes data packets across networks”



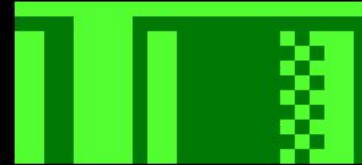
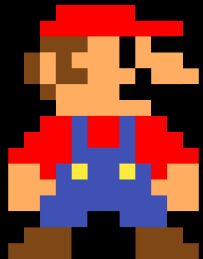
LINK LAYER

“Puts data packets on the wire”

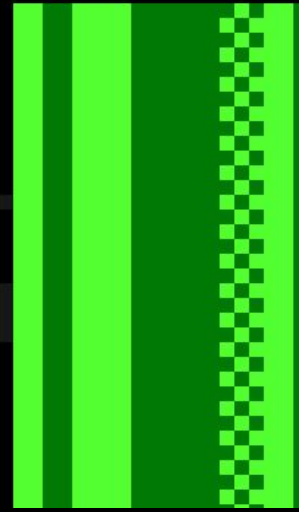
MONEY vs PAYMENTS



The thing that
can settle a
transaction.



@anilsaidso



The plumbing
that moves
money
(*updates
ownership*)
from A → B



TRANSACTIONING BITCOIN OFFLINE

SATELLITE
(BLOCKSTREAM)



SHORTWAVE
RADIO



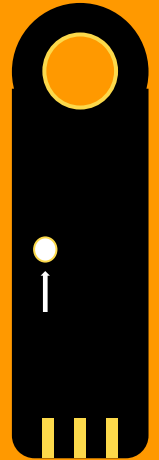
SMS



MESH
NETWORKS



PHYSICAL
BEARER
INSTRUMENTS



Bitcoin

DIGITAL DUPLICATION



1948

DIGITAL SCARCITY



2009

```
00000000 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000010 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000020 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000030 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000040 4B 1E 5E 4A 29 AB 5F 49 FF FF 00 1D 1D AC 2B 7C
00000050 01 01 00 00 00 00 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000060 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000070 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000080 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00000090 4A 61 6E 2F 32 30 30 39 20 43 68 61 6E 63 65 6C
000000A0 6C 6F 72 20 6F 6E 20 62 72 69 6E 6B 20 6F 66 20
000000B0 73 65 63 6F 6E 64 20 62 61 69 6C 6F 75 74 20 66
000000C0 6F 72 20 62 61 6E 6B 73 FF FF FF FF 01 00 F2 05
000000D0 2A 01 00 00 00 00 43 41 04 67 8A FD B0 FE 55 48 27
000000E0 19 67 F1 A6 71 30 B7 10 5C D6 A8 28 E0 39 09 A6
000000F0 79 62 E0 EA 1F 61 DE B6 49 F6 BC 3F 4C EF 38 C4
00000100 F3 55 04 E5 1E C1 12 DE 5C 38 4D F7 BA 0B 8D 57
00000110 8A 4C 70 2B 6B F1 1D 5F AC 00 00 00 00
```

Mechanics of the Bitcoin Protocol



Proof of Work



Cryptographic Time-stamps



Difficulty Adjustment

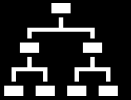


Supply Schedule & Halving



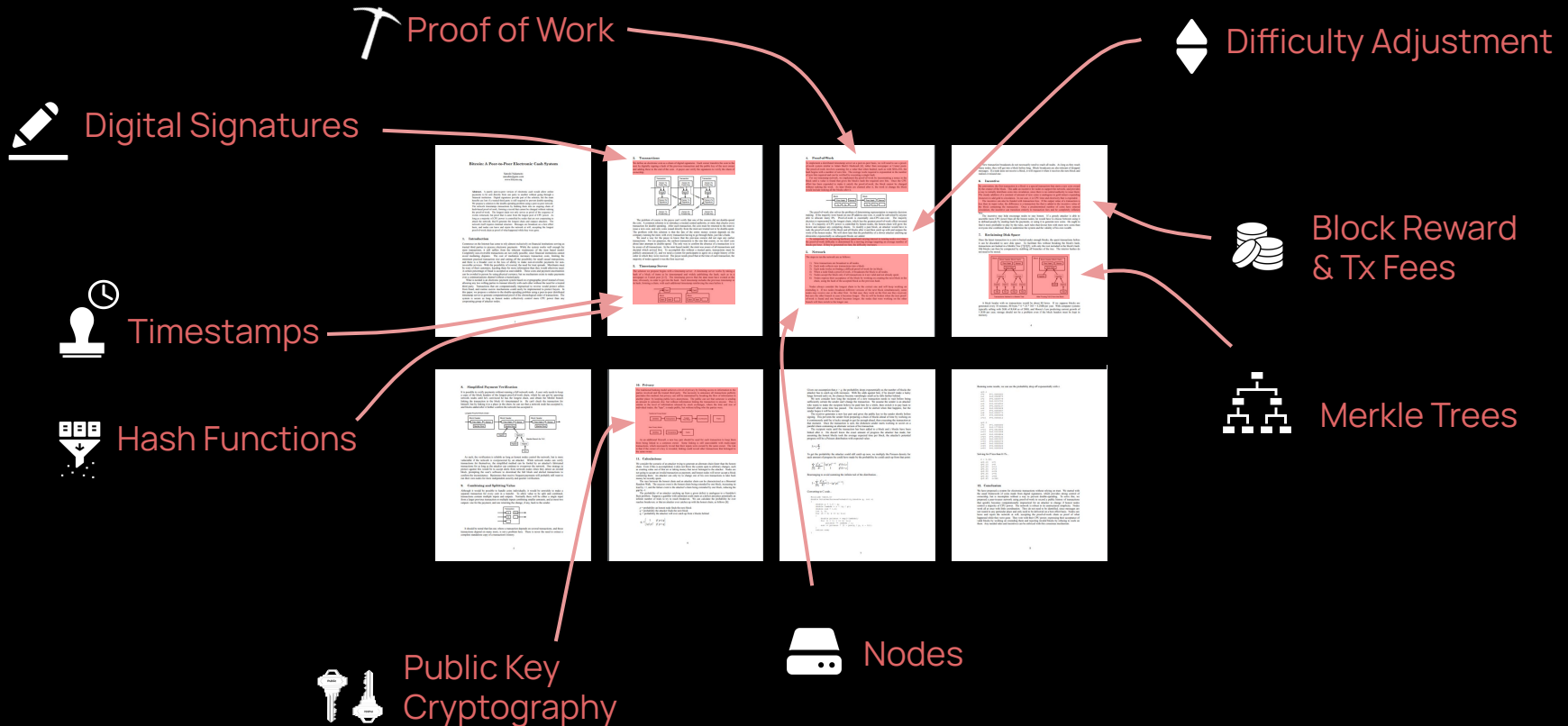
Public Key Cryptography

Peer-to-peer Network Architecture



Hash Functions & Merkle Trees

Deconstructing the White Paper



The Evolution of Accounting Technology

Single-entry

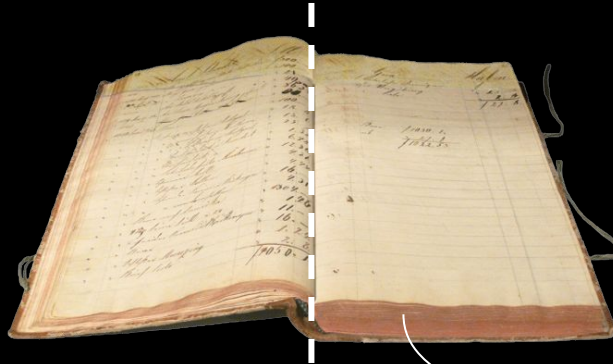


2000 B.C.

Mesopotamia

Sumerian cuneiform describing the receipt of oxen

Double-entry



70 A.D.

Rome, Italy

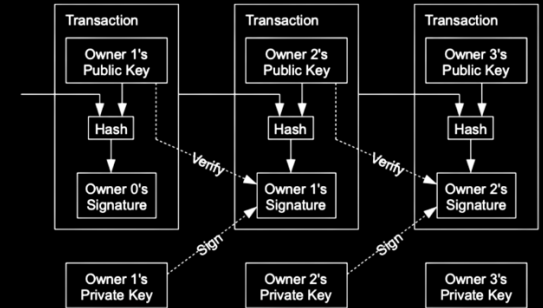
System of *Tabulae Rationum* described by Pliny the Elder

1299

Nîmes, France

Earliest recorded use by Amatino Manucci

Triple-entry

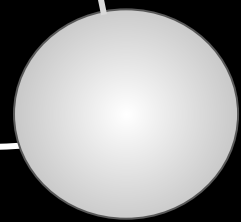


2008

System of an independently verifiable chain of digital signatures by Satoshi Nakamoto

@anilsaidso

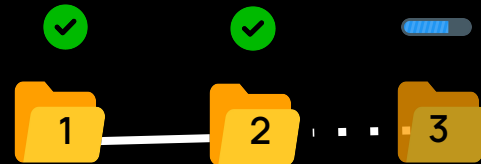
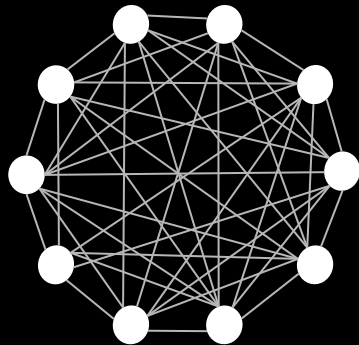
SOUND



UNSOUND



Bitcoin 6.15



bitcoin

money

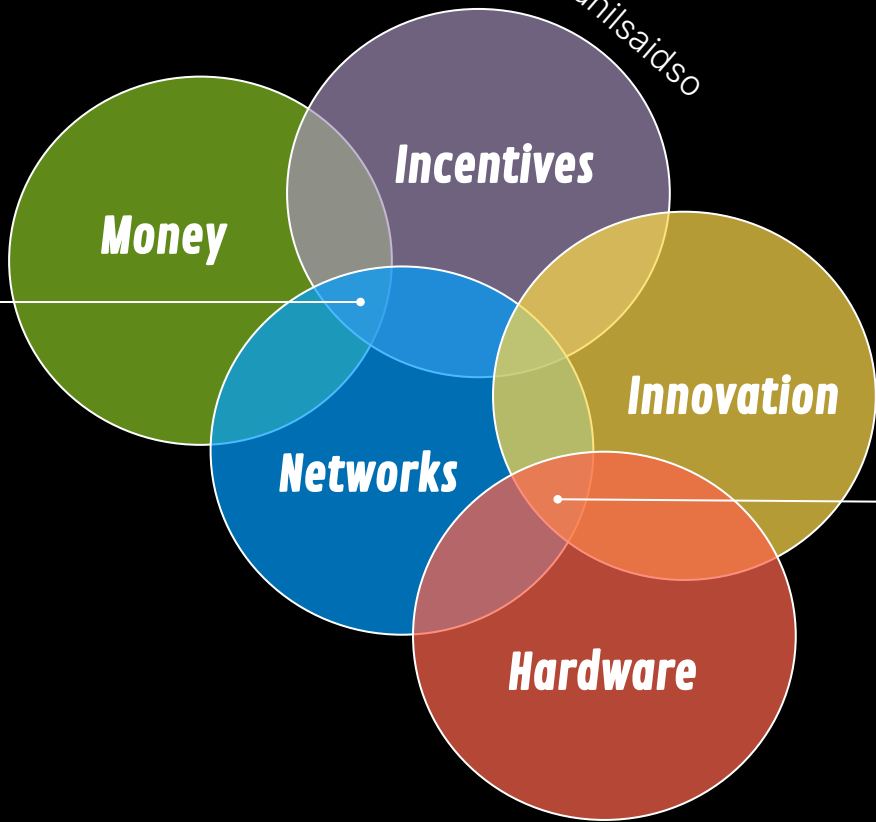
the network

connected nodes
w/ a common ruleset

the blockchain

linked record of
verified tx's

@anilsaidso



bitcoin
the money

bitcoin
the network

BITCOIN IS *INTERDISCIPLINARY*



@anilsaidso

*“Bitcoin will be
stopped”*

*“Bitcoin will be
obsoleted”*

**Understanding of
Monetary History**

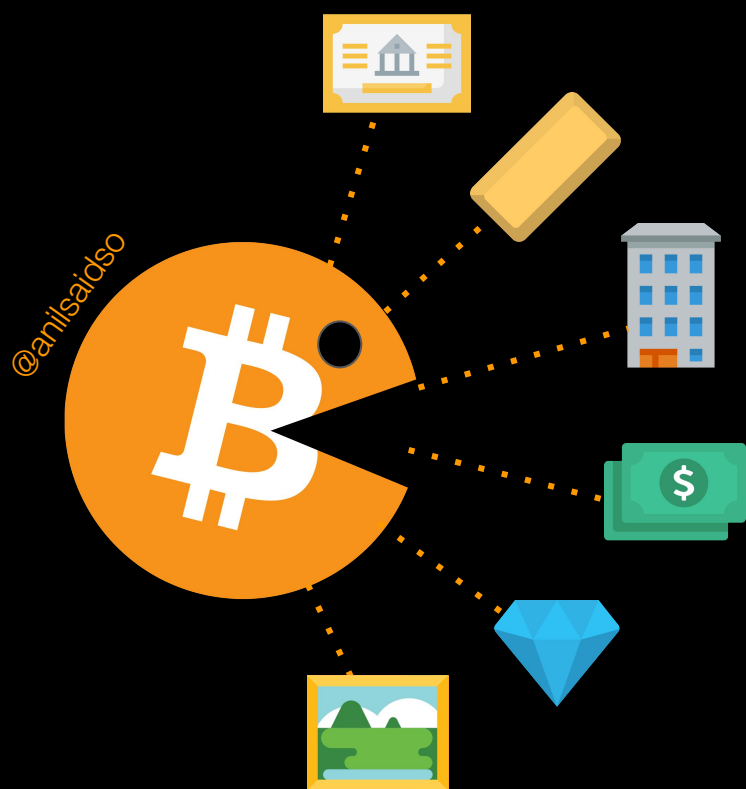
**Understanding of
Digital Networks**

*“Bitcoin
has already
won”*



2010's

Software is eating
the world



2020's

Software is eating
monetary goods

Birth year

1946-1964

BOOMERS

1965-1980

GEN X

1981-1996

MILLENNIALS

1997-2012

GEN Z

2013-2025

GEN $\text{\textcircled{B}}$

1960

1980

2000

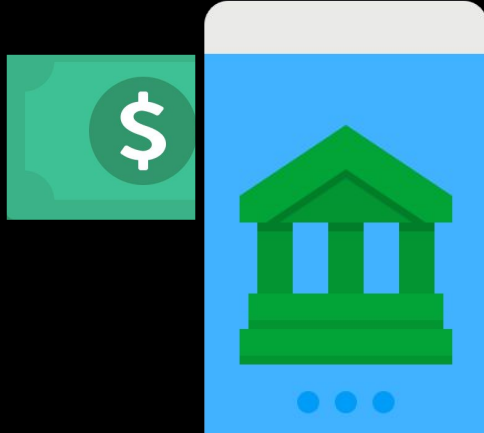
2020

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DIGITAL VS. NATIVELY DIGITAL

Bordered
Degradable
Closed
Permissioned
Censorable

Borderless
Upgradable
Open Source
Permissionless
Censorship-resistant



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what *normies* see

Fallacies

HEADLINE GENERATOR

Select technology ▼

Bitcoin

The Internet

Artificial Intelligence

Robots

Select hysteria ▼

Taking our Jobs

Boiling the Oceans

Facilitating Crime

A Speculative Bubble



The **FOUR** Critics of **Bitcoin**

According to Alex Gladstein



**Salty
Hater**

“You heard about Bitcoin years ago, but never bought, and are now salty.”



**Desperate
Statist**

“You believe money can only be created by the state, so Bitcoin breaks your worldview.”



**Dishonest
Intellectual**

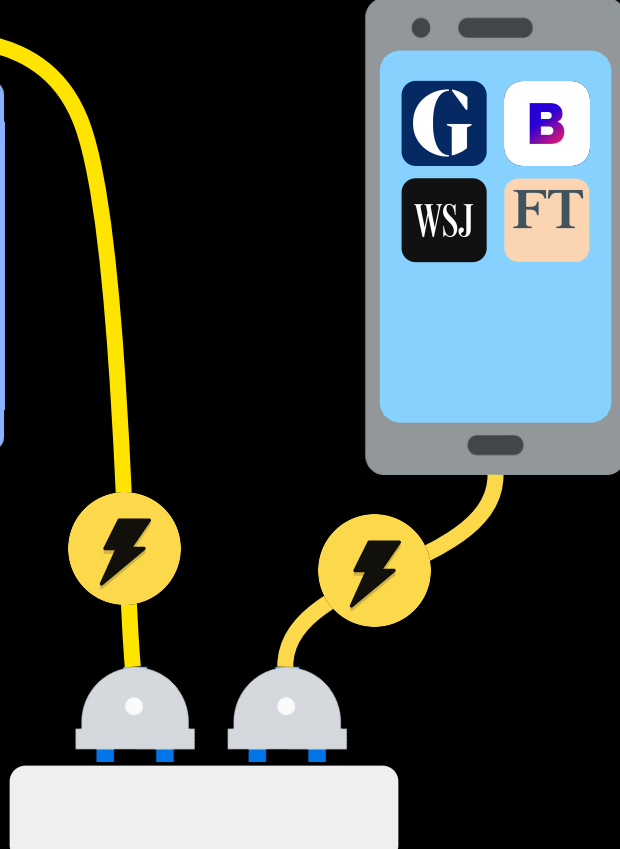
“You haven’t done the work to understand Bitcoin so you wish it would just go away.”



**Prisoner of
Sunk Cost**

“You are invested in an altcoin and feel the need to criticize Bitcoin to defend your life choices.”

**Gives
eight
billion
people
monetary
sovereignty**



**Used for
criticizing
bitcoin's
electricity
use**

Is bitcoin useful?

Unsure

No

Yes

Bad for society

Has failed

Will fail

Dangerous

Unfair

Scam
(ponzi, pyramid)

Excessive energy use

Facilitates crime

Pollution & e-waste

Speculation/
Gambling

Concentrated ownership

Incentivizes *hoarding*

Useless

Obsolete

Expensive to acquire

High fees

Volatile

Slow transactions

No intrinsic value

Limited functionality

Unbacked

Duplicable

No use case

Complicated to use

Economic

Technological

Government

Fee-based model

Miner concentration

Banned

Inelastic supply

Encryption hacked

Taxed

Corruptible supply

Internet reliant

Regulated



Anil

@anilsaidso 

“An incredible job”
—Saifedean

“Stunningly beautiful”
—Gigi

“A must-read”
—Zucco

“Signal through noise”
—Klippsten

“An impressive ability”
—Livera

